

## **AMENDMENTS TO THE CLAIMS**

The following listing of claims will replace all prior versions and listings of claims in the application.

### **LISTING OF CLAIMS**

1 – 20. (cancelled)

21. (currently amended) A production method of the laminated holographic medium ~~according to claim 1~~, comprising the steps of:

~~exposing the recording layer;~~

~~recording the information data on the recording layer; and~~

~~forming and adhering other layer independently produced.~~

providing an identification information recording medium by combining a recording layer which has an exposed surface, a gap layer, a first core layer, a first diffraction grating layer for recording data and a first cladding layer;

recording information data on the recording layer in a form of a recording mark transmittance or non-transmittance of light indicating the information data in accordance with a presence of a hole or a degree of transmittance of the light;

providing a ROM type recording medium by combining a second cladding layer, a second core layer and a second diffraction grating layer; and

combining the identification information recording medium and the ROM type recording medium.

22 – 25. (cancelled)

26. (currently amended) A laminated holographic medium of a laminated holographic memory system, wherein

the laminated holographic memory system includes:

the laminated holographic medium comprising;

a core layer to which an incident light comes in; and

a diffraction grating layer that is formed by converting a form or a refractive index distribution and from which a reproduction beam goes out; and comprises

a reproduction apparatus that radiates the incident light and detects the reproduction beam, and

a recording layer that comprises a recording mark that is provided at a position that is transformed in accordance with a predetermined regulation and based on a presence of brightness/darkness and a position of the reproduction beam radiated on the reproduction apparatus determined beforehand, and that expresses information by a presence of a hole that transmits or shades light or by a degree of transmittance of the reproduction beam; and

a diffraction grating layer for recording data that is formed to reproduce the presence and a position of the recording mark on a recording layer corresponding to the presence of brightness/darkness and the position of the reproduction beam determined beforehand ~~by reproducing with on~~ the reproduction apparatus.

27 – 31. (cancelled)

32. (currently amended) An authentication sheet production method comprising steps of:

~~one or more first core layers;~~

~~one or more diffraction grating layers for recording data provided upon, under or in the first core layer, formed by converting a form or a refractive index distribution and from which a reproduction beam goes out; and~~

~~one or more recording layers provided adjacent to the first core layers or the diffraction grating layers for recording data or provided next to the core layers or the diffraction grating layers for recording data with a gap layer in between, and to which information data is recorded as a recording mark having transmittance or non-transmittance of light indicating the information data by a presence of a hole or a degree of transmittance of the light.~~

providing an identification information recording medium by combining a recording layer which has an exposed surface, a gap layer, a first core layer, a first diffraction grating layer for recording data and a first cladding layer; and

recording information data on the recording layer in a form of a recording mark transmittance or non-transmittance of light indicating the information data in accordance with the presence of a hole or a degree of transmittance of the light;

33. (currently amended) [[The]] An authentication sheet produced by using a production method according to claim 32, wherein

— the diffraction grating layer for recording data is formed in order to indicate the presence and a position of the recording mark by a presence of brightness/darkness and a position of light when the reproduction beam is transmitted through the recording layer.

34 – 37. (cancelled)

38. (new) A laminated holographic medium produced by using a production method according to claim 21.

39. (new) A laminated holographic medium according to claim 38, further comprising: a reflection layer, wherein

the first diffraction grating layer, the recording layer and the recording layer are arranged in such a sequence.